DSCI 6007-Final Project – Showcase

Forecasting Inflation: LSTM Neural Network

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DSCI 6007
Final Project
Presentation Plan of Action

- Team Introduction

- Business Scenario Overview

- Solution Overview

- Solution Architecture Diagram

- Lessons Learned

- Demonstration

TEAM 2

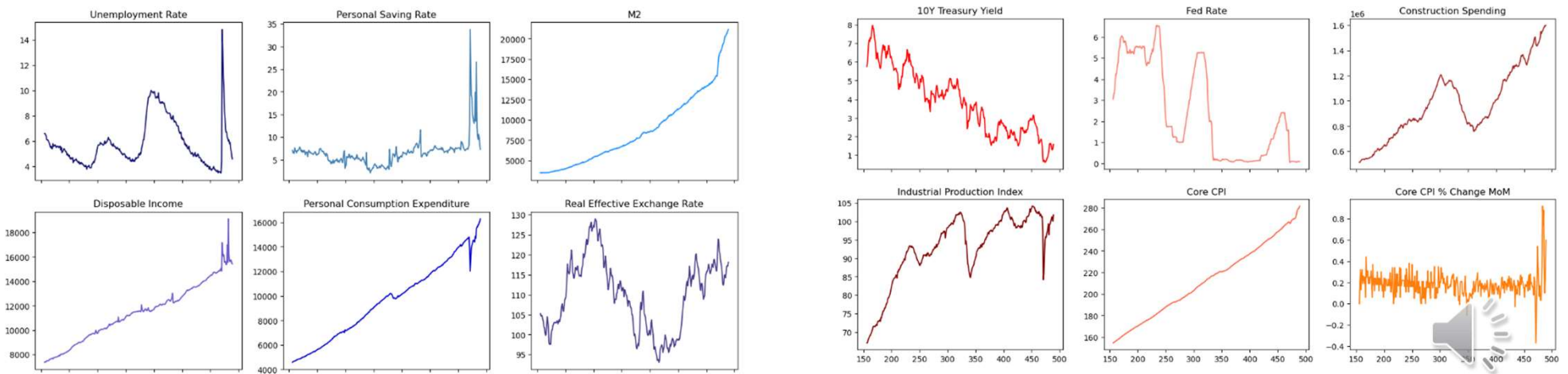Krishnaveni Peesapati

Vikas Vejendla
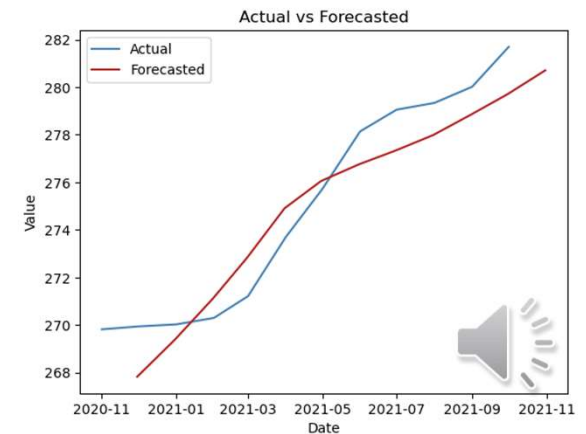
Jafar Vohra

Satish Nepal

Business Scenario Overview

- How can machine-learning be leveraged to predict inflation trends?

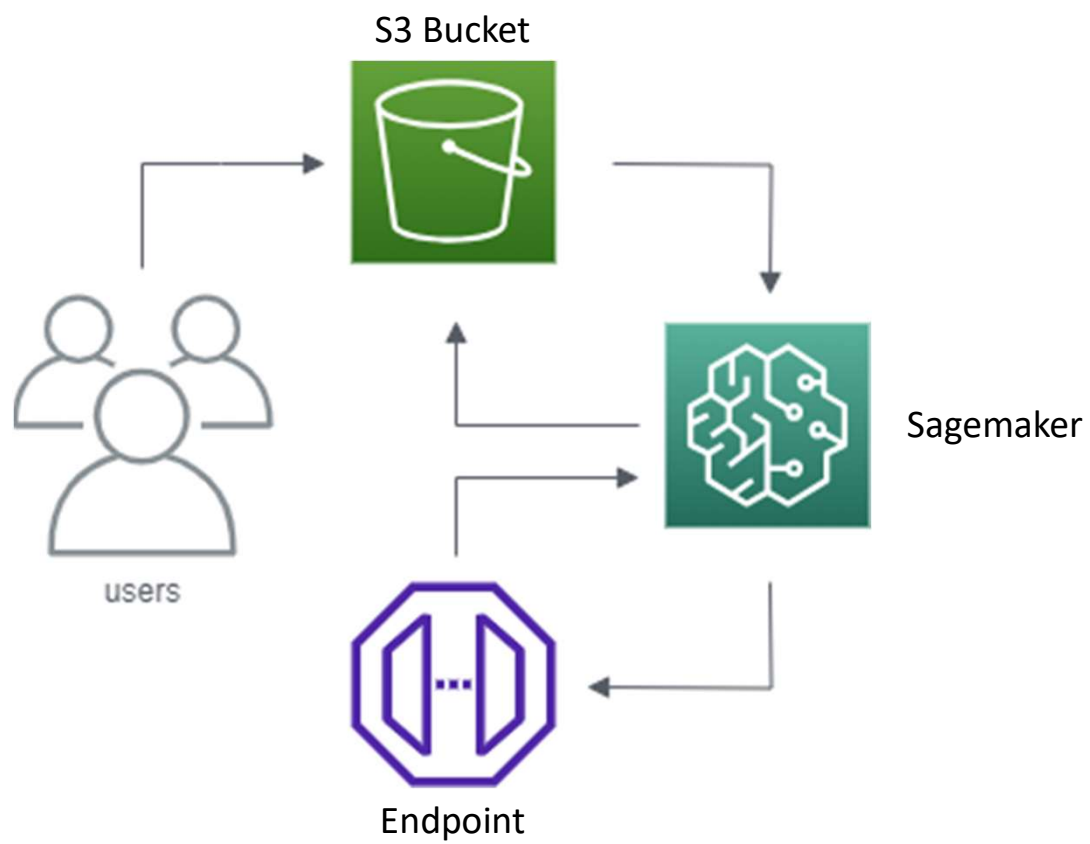- How can a pipeline be formed to streamline making predictions?

Solution Overview

- Cloud Based API model that predicts the Core Consumer Price Index (CCPI) based on various macroeconomic indicators

- AWS Sagemaker Notebooks for each individual task

  - Data Ingestion and Storage (s3)

  - Data Processing (Tensorflow)

  - Data Consumption (Endpoint)

Architecture Diagram of the Solution

Lessons Learned

- Simplify the data processing to make data for predictions easier to format

- Be mindful of archive structure of the model files when deploying

- Create the pipeline to be flexible for expansion

- Overestimate the numerous issues you are bound to face

Demonstration

GitHub Repository

Demonstration

Demonstration

Amazon SageMaker

Demonstration

Thank you!